

A WARNING AGAINST THE NEW DELUSION OF SIGHT FOR THE BLIND

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The records of stream flow, whether in the form of gauge readings or reports upon flood and low-water conditions of the past by travelers who have left records of their observations, show conclusively that there has been no radical change as a result of cutting off the forests. Reforestation in Europe shows no marked ameliorating influence in these respects, floods being as frequent and high, and low waters as low, from forested areas as from cleared areas otherwise similarly conditioned. The deeply rooted idea that forests are essential to the life and control of our streams is thus seen to be in the main fallacious.

"If that were their only virtue, forests would inevitably disappear, because the space they occupy could be better used for other purposes. The claim of the forest, however, rests upon other and thoroughly sufficient grounds. These are both useful and sentimental. Of all the products of nature, wood is among the few of highest importance to human existence, and there is no reason to think that this importance will disappear. The forest will remain a necessity to man. From a sentimental point of view forests are perhaps the most ennobling and inspiring of nature's works, and their contribution to the pleasure of

human life transcends all estimate. These considerations are sufficient, without any extraneous support, to insure the maintenance of forests in all civilized countries."

General Chittenden comes finally to Doctor Nicholas Murray Butler's picturesque allusion. It was made a great deal of in the forestry propaganda of a few years ago but we do not hear so much of it now. The truth is that it has no more support than the other arguments General Chittenden has considered:

"Works on climatology assure us that the alleged changes of climate in those regions have not taken place within historic times. And there is absolutely no proof that such changes as may possibly be detected are the result of deforestation. The Bible record, as far back as Moses at least, makes it perfectly clear that the climate and soil conditions of all southwestern Asia were essentially the same then that they are to-day. Population has diminished, it is true, and poverty, desolation, and ruin prevail where once were veritable hives of human activity. But this is wholly due to changes in systems of government and the character and spirit of the inhabitants. No one doubts—rather every one expects—that the ancient prosperity of Mesopo-

tamia, Syria, Asia Minor, and other sterile regions will yet be restored, and when this time comes trees will grow there, not as a cause but as a result of such restoration.

"China is constantly cited as an example of vast devastation wrought by floods as a result of deforestation. Yet the testimony of history is that the floods of the Hoang-ho, or Yellow River—the great flood stream of China and known from of old as 'China's sorrow'—were as destructive and frequent 2500 B. C. as they are to-day. The forests which Marco Polo is said to have seen in China, we know nothing of. But from all analogy they cannot have been more than are the scattering woods of our own semi-arid regions. Whatever they were they never prevented floods in that country, and forests will never prevent them there in the future, no matter to what extent reforestation may hereafter be carried out.

"The sombre prospect which Dr. Butler has drawn of the future of America may yet come true. The picture of the lone fisherman on London Bridge in Macaulay's vision may typify the future of our own New York. These possibilities we neither affirm nor deny, though we very much doubt. But this much we unhesitatingly affirm, that, whatever the wreck and ruin of the future, they will be the result of other causes than the disappearance of our forests."

## A WARNING AGAINST THE NEW DELUSION OF SIGHT FOR THE BLIND

ELABORATE accounts in some widely circulated newspapers of certain experiments which promise the production of an apparatus to be used as a substitute for sight prompt *The British Medical Journal* (London) to issue a warning against what it considers a dangerous delusion beginning to be widespread. Everyone knows, it remarks, that the sun may be felt as well as seen. Probably not a few schoolboys have experienced the torment of being subjected to the effects of the focussing of a "burning-glass" upon their skins. Now this has become the basis of a popular delusion on the subject of sight.

It is proposed with every appearance of seriousness that a burning-glass should be placed in such a position in relation to the breast of the blind subject that the light focussed by the lens falls accurately upon the skin. Means would be taken by the interposition of screens to prevent burning. By a process of training the subject would learn to see by means of the feel of the warm picture on his chest. The educational process would be carried out by placing a series of stencils on the chest, which would leave slits, circles, and later on letters and signs exposed to the heat rays. The sense of heat

perception would become acute by its cultivation.

All this sounds to *The British Medical Journal* very much like the tale that an ingenious schoolboy might write in emulation of Jules Verne. That newspapers of importance serve this sort of thing up to their readers as serious science indicates to the great organ of the English medical profession that a new evil is creeping into the practice of "newspaper science." That kind of science too often takes the form, we read, of some fact long familiar to experts in a branch of physics or chemistry doing duty in a morning despatch as a great discovery of the day before. The delusion regarding sight for the blind belongs to the kind of science which grows out of the great European war. It is supposed to be something German. Nothing is too preposterous to serve some newspapers as a "discovery," provided it comes from Berlin with a German name to sponsor it. Whether the German name be known to experts in the particular department of science concerned does not matter. Some times the German name is that of an expert dead long since. In this special instance, the delusion is built up about an article in the *Tägliche Rundschau*. This Berlin daily based its account

upon what was said in the *Deutsche optische Wochenschrift* by the well-known Professor L. Zehender. There is no basis at all for the statement that the professor in question claims to have discovered a substitute for sight.

The publication in a popular newspaper of this so-called substitute for sight, we are told, may not do any particular harm, because it is so crude. But it is otherwise with some of the schemes which from time to time are published in newspapers without any attempt at criticism.

"A few years ago a healer fleeced a maid servant of nearly fifteen pounds on the promise to grow her a new eye to fill the place of one she had lost; either he was less cunning than most of his kind or the girl more resolute than ordinary; by exception he got his deserts in a term of imprisonment. In the last few months we have known of two cases of children whose parents, refusing the care of the hospital physician, have resorted to quacks, with the result that these two children are now blind from the grossest effects of interstitial keratitis.

"There is another evil, and that is the publication of garbled versions of genuine forms of medical treatment and operation. Recently an unfortunate man, whose sight was nearly lost from progressive disease, came from the other side of the world in search of a cure that he had





heard of through an American newspaper. He brought with him a scrap of paper that he handled like a talisman of hope. It was a typical American 'wonder paragraph,' and the effect of its words, which he knew by heart, was too strong to allow him to depart as he came. He could not be brought to believe that the cure would be for him a danger. He must needs put his hope to the test. When seen again, as he was about to return to his distant home, he had lost his hope and had exchanged the remnant of his sight for two blind and painful eyes!"

Notwithstanding the warnings issued in the medical and scientific press against the growing delusion that sight is now possible for the blind, London

*Nature* is inclined to fear that the misconception in the public mind can not be corrected. Experience shows that errors of this kind persist among the classes who suffer most from them. Nor need we wonder if the laity swallow the nonsensical idea that the blind can be made to see by human agency. The laity have been taught in recent years, owing to the revolutionary nature of certain discoveries, to attach faith to almost any absurdity that masquerades as science. The bewildering variety of the discoveries of this century would seem to encourage the quack, the charlatan and the lunatic to pose as an expert in some freshly

invented science. The blind are the latest victims, that is all:

"Occasionally the daily papers deign to insert a paragraph of what they think to be scientific news. If the public prefers its sensational tit-bit of science-gossip, culled from the pamphlet of some pseudo-scientific charlatan and served up hot by an anonymous paragraphist, to more sober and informing articles written by men whose authority is indisputable, the public has itself to thank. Editors and sub-editors do not know enough science to suppress the title; and, consequently, blunders which would be thought amazing if perpetuated in a like fashion in the domains of literature or art or history, are put into gratuitous and harmful circulation."

## PROBLEMS CONFRONTING THE CHIEF OF STAFF OF AN INFANTRY DIVISION IN OUR ARMY

UNDER the requirements of a real war, our small standing army will be expanded to ten or twelve times its peace strength. It was hoped that the militia laws of recent years would provide for a first line of regulars and organized militia of at least 250,000 men. The chief of the coast artillery requires for reinforcement of the forts 20,000 infantry, for land defense 30,000 infantry. This leaves for the first line a total of 139 infantry regiments, 13 artillery regiments and 17 cavalry regiments—240,000 men or thereabouts. The infantry strength points to the formation of 15 divisions. To round these out would require the immediate raising of 17 regiments of field artillery and a similar immediate increase of cavalry or the reduction of the force of that arm assigned to the infantry divisions in order to provide the necessary independent cavalry divisions. The first line thus provided would number less than 300,000 combatants and it is apparent that a second line equally strong would have to be formed at once, while a third line would probably be forming by the time the first line was in the field. These details we take from an article in *The Journal of the Military Service Institution* by Captain E. D. Scott of the fifth field artillery. In round numbers, he says, 2,300 field officers will be required for this army of 600,000 men. And what, Captain Scott asks, will be the personnel of a division of the second line of the so-called national army?

trained commander: a dozen staff officers, about half of whom are trained; sixty field-officers, of whom a dozen at most are from the Regular establishment, and most of whom will for the first time be handling anything larger than a company; 135 men with double bars on their shoulder straps, to whom the rudiments of the business of the infantrymen are as yet unknown; twice that number of lieutenants whose only reason for not being captains or higher is that the other fellows had a little greater political influence; twenty-five captains and forty-four lieutenants of artillery whose knowledge of explosives is in general limited to giant firecrackers and the old nine-pounder of Independence-Day fame and who have dreamed of glory on the battle-fields with such masterpieces of the ordnance maker's art as the old bronze gun of Mexico or Manila in the town park; a dozen of them can ride after a fashion, one or two know something of the care of horses; fifteen captains and thirty lieutenants, in the cavalry because it sounds dashing and has a halo of romance about it—curvetting horses, flashing sabers, thundering hoofs, the hostile army flying in utter rout, the glad acclaim of the grateful nation, and all the rest of it—a few can ride, the others think they can, none are cavalrymen except in their dreams. Engineer officers with a vague idea that there is something about bridges in the business and with dim recollections of how a Sapper-Bold won the V. C. and the thanks of his countrymen somewhere by blowing in a gate by a bag of powder hung on it. Signal-officers with the idea that whatever their business may be, it is the staff, and therefore must be desirable. And what a motley crowd they are! Enthusiastic youths with no thought of the responsibility their commissions carry with them; quiet, capable citizens who left home and business because they honestly felt they owed it to their country in her time of need; scapegrace sons and nephews of politicians who see a chance to be somebody and to cheaply get, by holding unearned commissions, the social and public status they could never gain in other ways; the failures at other things

who see in the army at least a comfortable livelihood with an apparent minimum of work, and all enrolled with the same qualifications."

No use, declares Captain Scott, to turn to the European masters of military science in this case—the various gentlemen whose military works are held in such high esteem did not write for conditions such as these. They could not have fancied such conditions existing in a civilized state. Most of them would have replied to a request to take command of such a heterogeneous mass after the outbreak of war and prepare it for the field with a polite refusal. Their knowledge and their skill are that of the chess-player who knows how to manipulate his finished pieces. The United States government turns over to its subordinates, themselves trained only in the rudiments of the game—or not at all—a mass of timber, unseasoned, untested, full of knots. The chief of staff must make the chessmen and play them afterwards.

What sort of a man should the chief of staff be to handle such a situation properly? Preferably, replies Captain Scott, a man physically and mentally strong, of forceful character, and will that bends but does not break, self-disciplined in body and in mind, a trained tactician and organizer but also a man who has by long service with the troops acquired a true appreciation of the human and brute elements, the capabilities and limitations of the different arms, not alone the finished product but in the various stages of recruit up. No amount of schooling will supply the lack of this latter training and, other conditions being equal, the practical soldier who never saw a school will do better with the raw mass than the officer whose knowledge of men is confined to those of his own

"One chance in three or four that the commander is a professional soldier, the other chances being that he has not even the experience of a National Guardsman, but is a politician who knows nothing of war or things military; about an even chance that one brigadier is a professional tho not in all probability a





